

REMARKS

Reconsideration and allowance of the instant application is respectfully requested in light of the foregoing amendments and the following remarks.

Claim Status

Claims 1, 3, 5-10, and 12-17 are pending. Claims 2, 4, and 11 are canceled. No new matter was added. Claims 18-33 are withdrawn from consideration in view of the restriction requirement.

Restriction Requirement

Applicant acknowledges the election of Group I (claims 1-17) and reserves the right to file a divisional application on non-elected group II (claims 18-33).

35 USC § 102 Rejection

Claims 1-4, 12 and 14-17 stand rejected under 35 USC §102(b), as anticipated by Bretz (US 6,300,468). Claims 1-5, 9-14, 16, and 17 stand rejected under 35 USC §102(b), as

anticipated by Tabaksblat (US 6,051,618). Applicant traverses. Applicant disagrees with these rejections as neither the Bretz reference nor the Tabaskblat reference constitute an anticipatory reference because Bretz and Tabaskblat do not individually teach all of the elements of either claims 1-4, 12 and 14-17 or claims 1-5, 9-14, 16, and 17. To anticipate a claim, the reference must teach every element of the claim (See MPEP §2131).

From MPEP 2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdigaal Bros. v. Union Oil Co. of California*, 814 R.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Claims 2, 4, and 11 require that the porous polymer substrate be hydrophilised over at least part of its entire surface with a surfactant with a concentration of between 0.1 wt.% and 15 wt.% relative to the weight of the carrier, none of which are described in Bretz or Tabaskblat. Applicant has cancelled claims 2, 4, and 11 and incorporated them into currently amended claim 1. In view of the current amendments, currently amended claim 1 recites a carrier that can be loaded with an aqueous media being comprised of a plurality of particles, the particles being made of a porous hydrophobic polymer substrate having a mean particle size between 50 μ m and 5000 μ m and an at least partly open-pore structure with a mean pore diameter

between 1 μ m and 200 μ m. The porous polymer substrate being hydrophilised over at least part of its entire surface with a surfactant having a concentration of between 0.1 wt.% and 15 wt.% relative to the weight of the carrier.

As for the dependent claims in view of Bretz and/or Tabaskblat, "If an independent claim is not anticipated by prior art, then its dependent claims, which necessarily include the limitations of the independent claim, are not anticipated either. *Kovin Assoc. v. Extech/Exterior Technologies*, 2006 U.S. Dist. LEXIS 63250 (N.D. Ill. 2006), citing *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1296 (Fed. Cir. 2002). Following *Kovin Assoc.*, dependent claims 3, 5-10 and 12-17 are not anticipated by Bretz and/or Tabaskblat and should be allowed.

35 USC § 103 Rejection

Claims 1-4, 12 and 14-17 stand rejected under 35 USC 103(a) as obvious over Bretz (US 6,300,468). Claims 1-5, 9-14, 16, and 17 stand rejected under 35 USC 103(a) as obvious over Tabaksblat (US 6,051,618). Applicant traverses.

There is no disclosure in Bretz with respect to whether or not the pore structure is at least partly open pored, as

required by Claim 1 of the present invention. Even if it is assumed that the pore structure of the particles disclosed in Bretz are partly open-pored, it is not possible to determine if it is sufficient to load those particles with at least 10 wt.% water, relative to the total weight of the loaded particles.

In addition, even if Bretz mentions that the polymer beads can be coated or impregnated with additives like surfactants (Column 3, Lines 43-48) there is no disclosure whether the polymer beads in Bretz are hydrophilized by those surfactants. Even if it is assumed that some degree of hydrophilization is effected by the surfactant in Bretz, there is no disclosure that the hydrophilicity is sufficient to effect a loadability with water in the range specified in claim 1 of the present application by simply bringing the polymer beads disclosed in Bretz in contact with water. There is no disclosure in Bretz with respect to the concentration of the surfactant. According to the currently amended Claim of the present application, the surfactant must be present in the carrier in a concentration between 0.1 wt.% and 15 wt% relative to the weight of the carrier to allow for both the attainment of adequate hydrophilization and to avoid the blocking (i.e., clogging) of the pores by their being coated with the surfactant.

Therefore, Bretz does not disclose the combination of all structural and physico-chemical features of the carrier according to the present invention as defined in currently amended claim 1. Thus, the carrier according to currently amended claim 1 is new over Bretz. As such, the subject matter included in currently amended claim 1 of the present application is neither anticipated nor obvious over Bretz as Bretz fails to discuss or disclose carriers which may be loaded with water and does not provide any method for obtaining such carriers.

Tabaskblat discloses porous polyolefin particles and a process for their preparation. According to claim 1 of Tabaskblat, in the process, a polyolefin solution is dispersed by stirring in a non-solvent to form a multiphase system consisting of droplets of the polymer solution dispersed in the non-solvent. The multiphase system is cooled with simultaneous stirring down to a temperature which is below the crystallization temperature of the polyolefin in the polyolefin solution, whereby polyolefin particles are formed. Thereafter, the particles are separated from the liquids and dried. (Column 1, Lines 29-53). Citing Column 4, Lines 65-66, the Examiner alleges that the polyolefin particles contain in an amount up to 5% by weight of surfactants. Applicant respectfully disagrees as this a misinterpretation of the disclosure of Tabaskblat. Tabaskblat teaches in Column 4,

Line 62 forward, that a surfactant may be added to the non-solvent, whereby the concentration if preferably 10 ppm to 5 wt.%. Thus, the surfactant is not added to the final polyolefin particles, but instead to the non-solvent in which the drops of polyolefin solution are dispersed during the preparation of the particles. After the formation of the polyolefin particles as a result of the cooling of the multiphase system, the particles are separated from the liquids, (i.e., from the non-solvent) including the surfactant, and partly of the solvent.

Contrary to the Examiner's argument, there is no disclosure in Tabaskblat that the polyolefin particles themselves contain a surfactant and are hydrophilized over at least part of their entire surface by coating with a surfactant. Moreover, there is no disclosure in Tabaskblat that the surfactant in the particles has a concentration between 0.1 wt.% and 15 wt.% relative to the weight of the particles. In addition, Tabaskblat fails to disclose that a carrier formed from the polyolefin particles has a loadability with water, determined by bringing it into contact with water, of 10 wt.% to 95 wt.% relative to the total weight of the loaded carrier. As such, the subject matter included in currently amended claim 1 of the present application is neither anticipated nor obvious over Tabaskblat as Tabaskblat

fails to discuss or disclose carriers for aqueous media and does not provide any method for obtaining such carriers.

As for the dependent claims in view of Bretz and/or Tabaskblat, following *Kovin Assoc.*, described above, dependent claims 3, 5-10 and 12-17 are not obvious in view of Bretz and/or Tabaskblat and should be allowed.

Applicant respectfully disagrees with the Examiner's statement that "the claims do not require an aqueous media be part of the carrier" so that "any limitations associated with an aqueous media are found irrelevant to the article claims." Applicant traverses. While it is true that the claims do not require an aqueous media be part of the carrier, the limitation that "the particulate carrier has a loadability with water, determined by bringing it into contact with water, of 10 wt.% to 95 wt.% relative to the total weight of the loaded carrier", indeed is a feature which is strongly related to structural and physico-chemical properties of the carrier and therefore is highly relevant to all of the article claims.

The loadability with water is the result of a complex interaction of structural parameters like porosity, pore size, an at least partly open pore structure, and physico-chemical factors like surface properties (hydrophilicity, hydrophobicity). Simply spoken, a material having a too low

porosity cannot take up water in a quantity of at least 10 wt.%. A porous material having closed pores cannot take up water at all, even if the porosity is high. If the pores are too small, it will be difficult to load the carrier with water by simply bringing it into contact with water. The same is true if the carrier has hydrophobic surfaces. If the carrier has hydrophobic surfaces, water will not penetrate into the pores of the carrier when the carrier simply is brought into contact with water. What is meant by the feature "by bringing it into contact with water" becomes evident from the test method described in paragraphs [55] to [59] of the currently pending application. Application of vacuum pressure is necessary to load porous materials having hydrophobic surfaces with water. Thus, the feature that the particulate carrier has a loadability with water, determined by bringing it into contact with water of 10 wt.% to 95 wt.% relative to the total weight of the loaded carrier, is the result of the combined effects of especially the porosity, the pore size, the fraction of open pores, and the hydrophobicity of the surface of the substrate particles, and is therefore a feature strongly related to the carrier itself.

Respectfully submitted,



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